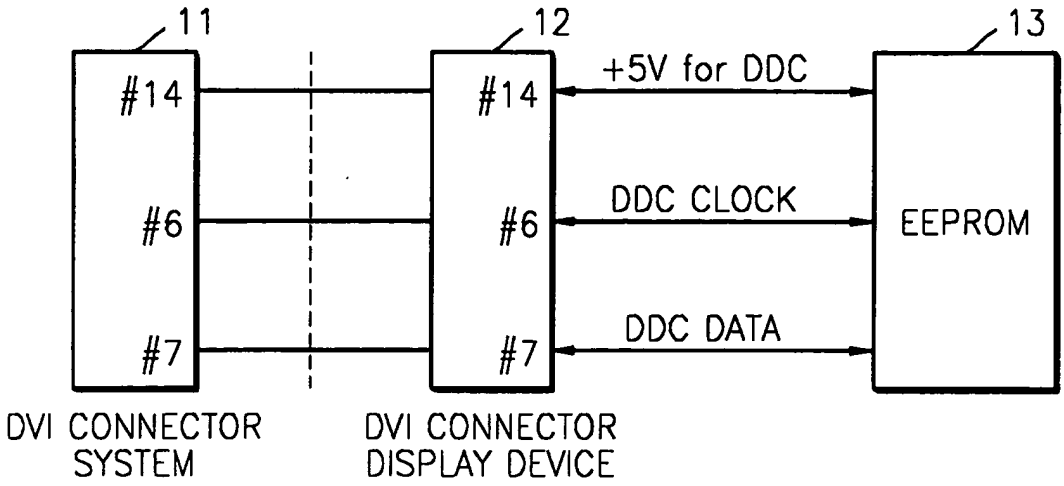
# FIG. 1 (PRIOR ART)




# FIG. 2 (PRIOR ART)

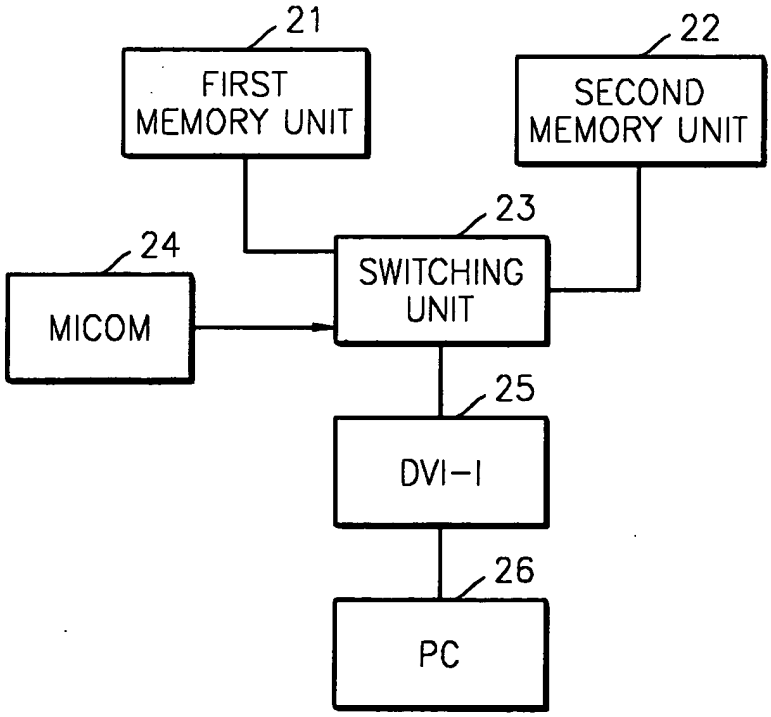
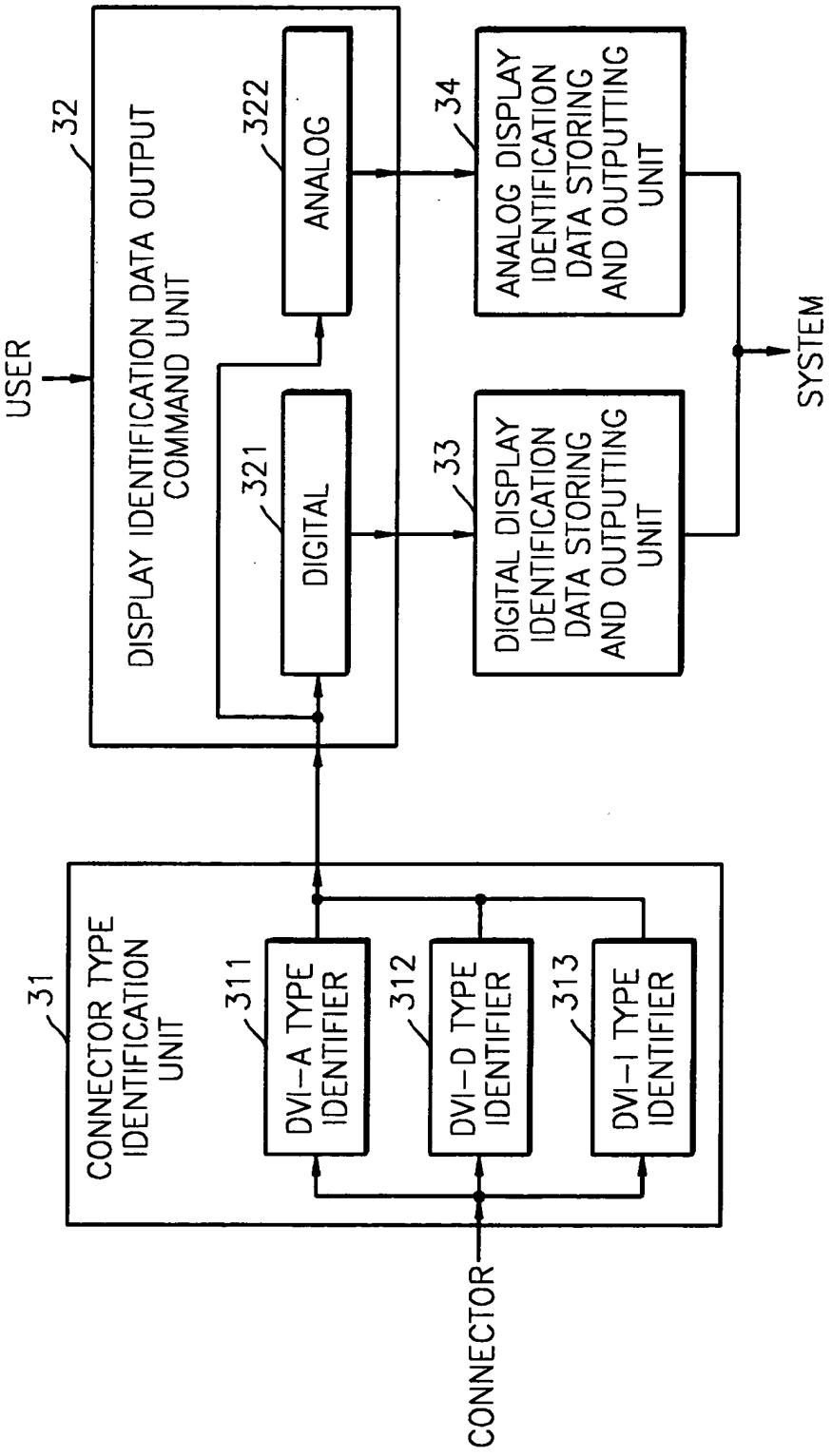
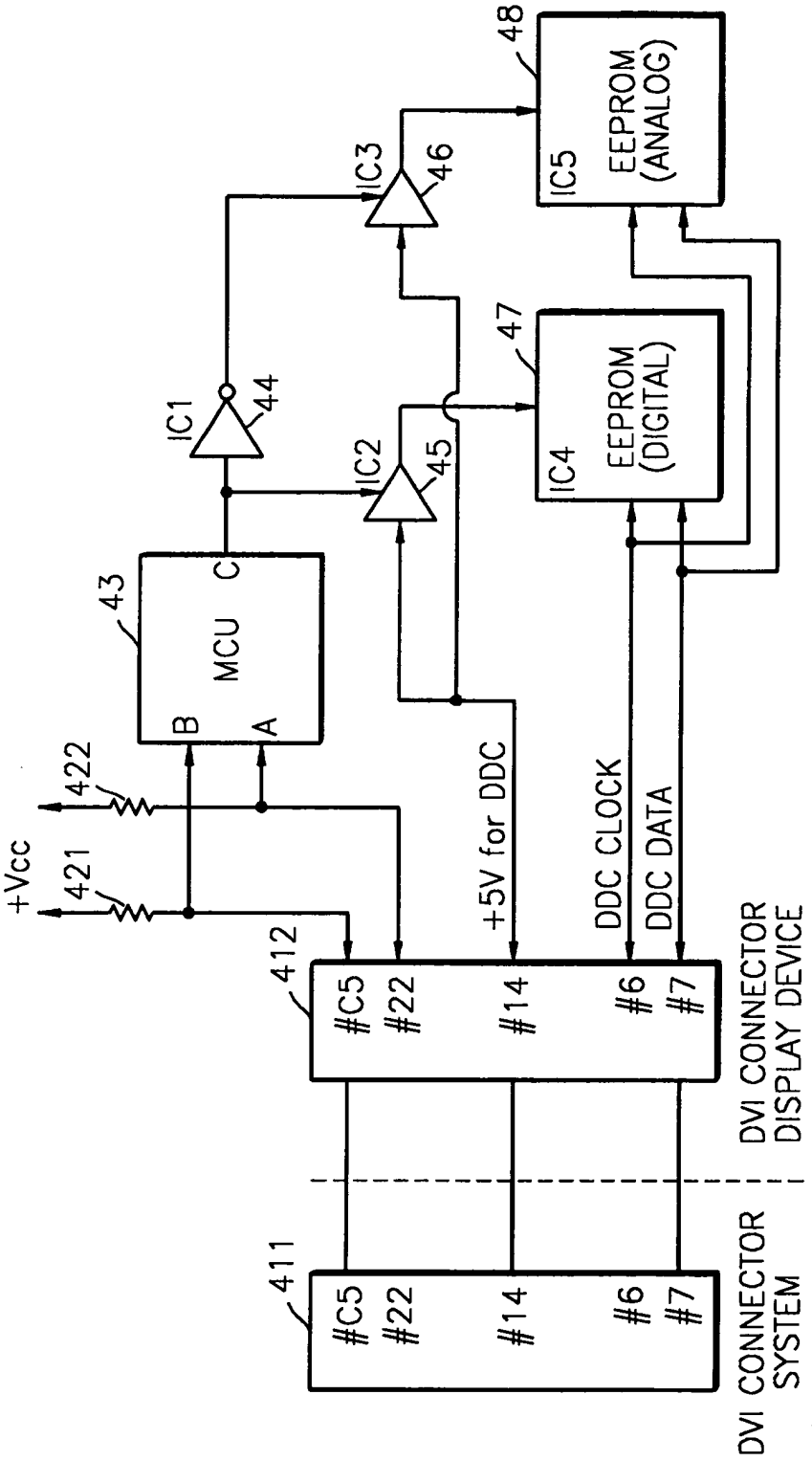


FIG. 3


CONNECTOR
31
CONNECTOR TYPE IDENTIFICATION UNIT
311
DVI-A TYPE IDENTIFIER
312
DVI-D TYPE IDENTIFIER
313
DVI-I TYPE IDENTIFIER
32
DISPLAY IDENTIFICATION DATA OUTPUT COMMAND UNIT
321
DIGITAL
322
ANALOG
USER
33
DIGITAL DISPLAY IDENTIFICATION DATA STORING AND OUTPUTTING UNIT
34
ANALOG DISPLAY IDENTIFICATION DATA STORING AND OUTPUTTING UNIT
SYSTEM

TITLE: APPARATUS AND METHOD FOR OUTPUTTING DIFFERENT
DISPLAY IDENTIFICATION DATA DEPENDING...
INVENTORS: Kyung-shik LEE
SERIAL NO.: TO BE ASSIGNED
DOCKET NO.: 1793.1037

FIG. 4



# FIG. 5

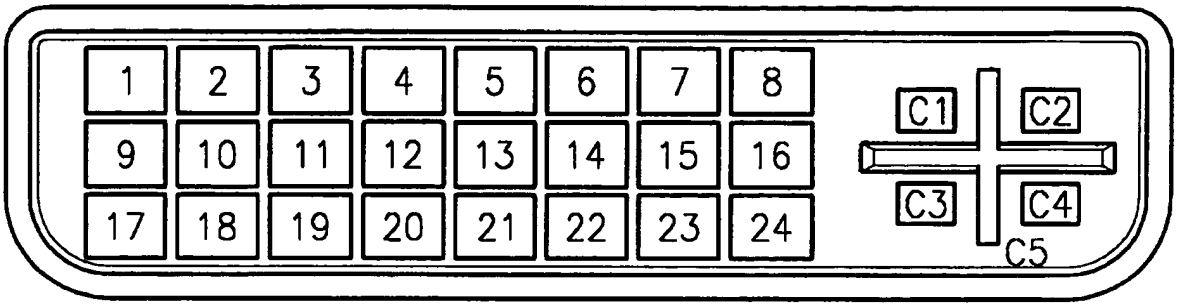


FIG. 6

| | DVI-D | DVI-I | DVI-A | | DVI-D | DVI-I | DVI-A | | DVI-A | DVI-I | DVI-D | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | TMDS Data 2- | | N.C | 9 | TMDS Data 1- | | N.C | 17 | N.C | TMDS Data 0- | N.C | C1 | Analog Red |
| 2 | TMDS Data 2+ | | N.C | 10 | TMDS Data 1+ | | N.C | 18 | N.C | TMDS Data 0+ | N.C | C2 | Analog Green |
| 3 | TMDS Data 2/4 Ground | | N.C | 11 | TMDS Data 1/3 Ground | | N.C | 19 | N.C | TMDS Data 0/5 Ground | N.C | C3 | Analog Blue |
| 4 | TMDS Data 4- | | N.C | 12 | TMDS Data 3- | | N.C | 20 | N.C | TMDS Data 5- | N.C | C4 | Analog H Sync |
| 5 | TMDS Data 4+ | | N.C | 13 | TMDS Data 3+ | | N.C | 21 | N.C | TMDS Data 5+ | N.C | C5 | Analog Ground |
| 6 | DDC Clock | | | 14 | +5V Power | | | 22 | N.C | TMDS Clock Ground | | | |
| 7 | DDC Data | | | 15 | Ground (+5,H/V Sync) | | | 23 | N.C | TMDS Clock+ | | | |
| 8 | N.C | Analog V Sync | | 16 | Hot Plug Detect | | | 24 | N.C | TMDS Clock- | | | |

# FIG. 7

| DVI MANNERS | 22nd PIN | C5-th | INPUT OF A (MCU) | INPUT OF B (MCU) | OUTPUT OF C (MCU) | CIRCUIT OPERATIONS |
|---|---|---|---|---|---|---|
| DVI-D TYPE | GROUND | HIGH IMPEDANCE | LOW | HIGH | HIGH | IC2 ON, IC3 OFF, CONNECTED TO IC4 |
| DVI-A TYPE | HIGH IMPEDANCE | GROUND | HIGH | LOW | LOW | IC2 OFF, IC3 ON, CONNECTED TO IC5 |
| DVI-I TYPE | GROUND | GROUND | LOW | LOW | HIGH/LOW 선택 가능 | IC4 OR IC5 SELECTED |

TITLE: APPARATUS AND METHOD FOR OUTPUTTING DIFFERENT DISPLAY IDENTIFICATION DATA DEPENDING...
INVENTORS: Kyung-shik LEE
SERIAL NO.: TO BE ASSIGNED
DOCKET NO.: 1793.1037

FIG. 8

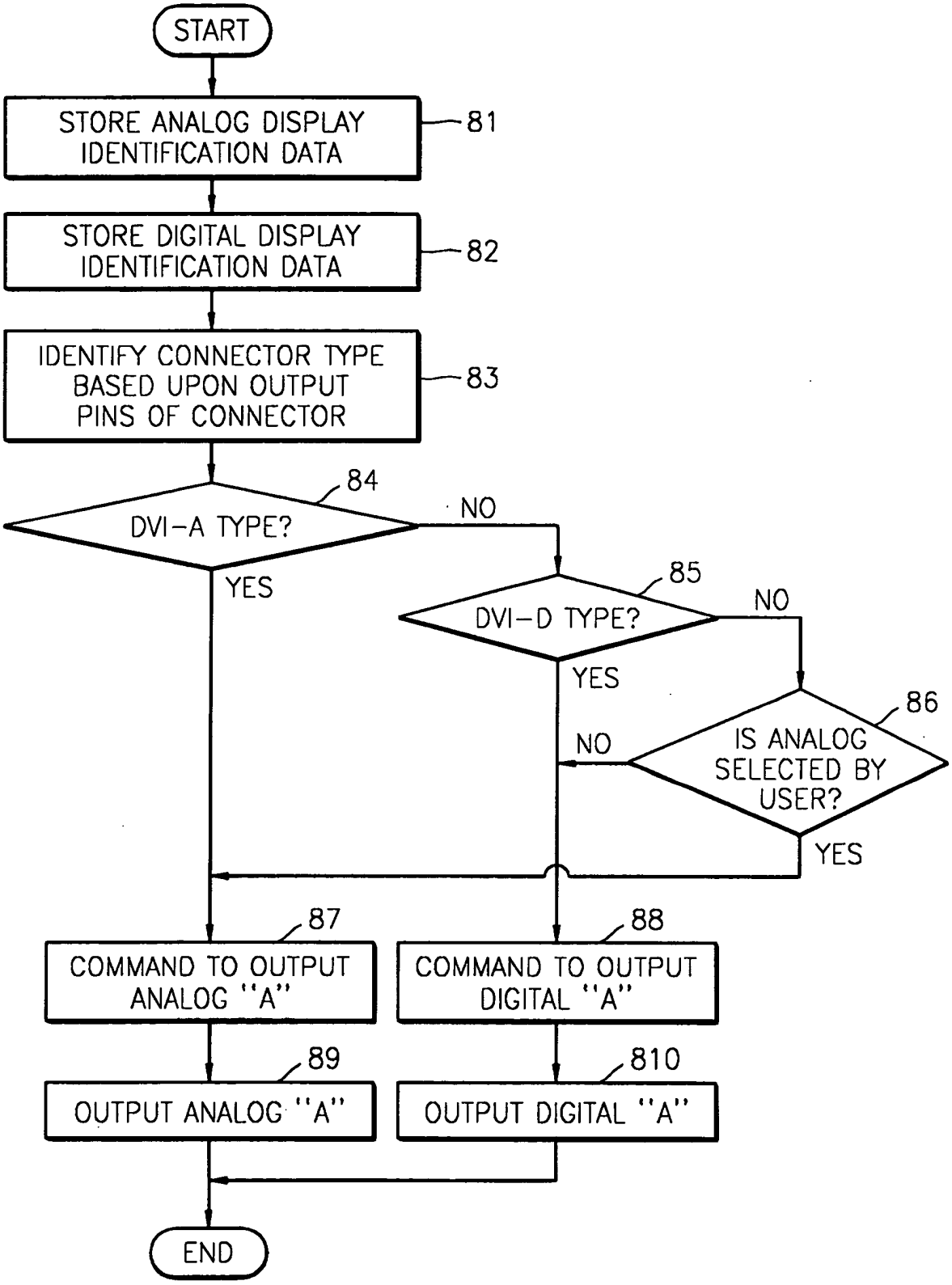

START
STORE ANALOG DISPLAY IDENTIFICATION DATA
81
STORE DIGITAL DISPLAY IDENTIFICATION DATA
82
IDENTIFY CONNECTOR TYPE BASED UPON OUTPUT PINS OF CONNECTOR
83
84
DVI-A TYPE?
NO
YES
85
DVI-D TYPE?
NO
YES
86
IS ANALOG SELECTED BY USER?
NO
YES
87
COMMAND TO OUTPUT ANALOG "A"
88
COMMAND TO OUTPUT DIGITAL "A"
89
OUTPUT ANALOG "A"
810
OUTPUT DIGITAL "A"
END

FIG. 9

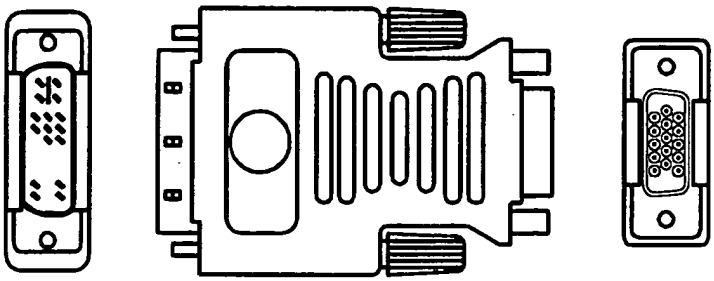


FIG. 10

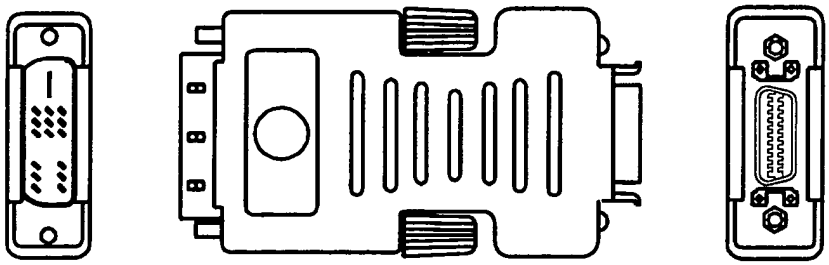
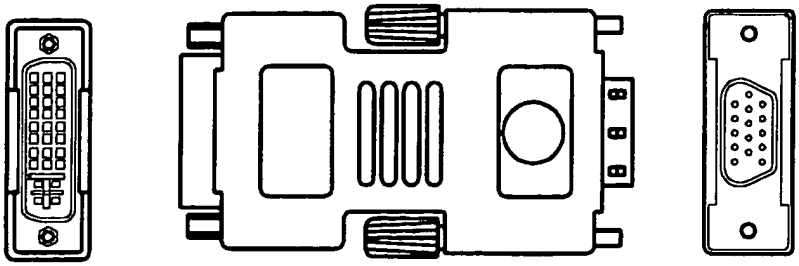



FIG. 11